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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,944

02/10/2006

Hiroshi Fukukita

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EXAMINER

HOFFA, ANGELA MARIE

ART UNIT

PAPER NUMBER

4138

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/567,944	FUKUKITA, HIROSHI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Angela M. Hoffa	4138	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/10/06</u> .   | 6) <input type="checkbox"/> Other: ____.                          |

### **DETAILED ACTION**

1. This office action is in response to application No. 10/567944 filed on February 10, 2006.

#### ***Priority***

2. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged.

#### ***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: Power Reducing Ultrasound Diagnostic Apparatus.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The "shifting of the selection target" in the parent claim is performed in "a column direction" while in Claim 2, it is also performed in the "row direction". The specification does not describe an intra-group processor that shifts the selection target simultaneously in both row and column directions.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,238,346 B1 to *Mason*.

Regarding Claim 1, *Mason* discloses an ultrasonic diagnostic apparatus comprising an electroacoustic conversion unit including electroacoustic conversion devices with M row and N columns (Abstract, Lines 1-6; “transducer elements 14”), which sub-arrays are arranged at least two-dimensionally with J rows and K columns, each of the sub-arrays including electroacoustic conversion devices with m rows and n columns, where  $M = m \times J$ ,  $N = n \times K$  (Abstract, Lines 9-13; “sub-array 16”); intra-group processors with J rows and K columns provided corresponding to the respective sub-arrays (“switches 26, 28, 30, 42, 44, 46”, Figure 1); and a selection unit *capable of* selecting intra-group processors with j rows and k columns as a target from the intra-group processors with J rows and K columns, the selection being performed while shifting the selection target of the intra-group processors in a column direction (“controller 24”, Col. 3, Lines 30-37).

Regarding Claim 2, *Mason* further discloses an ultrasonic diagnostic apparatus wherein the selection unit is *capable of* selecting intra-group processors with j rows and k columns as a target from the intra-group processors

with J rows and K columns, the selection being performed while shifting the selection target of the intra-group processors in a *row* direction (“controller 24”, Col. 3, Lines 30-37; Col. 4, Lines 22-26).

Regarding Claim 3, *Mason* further discloses an ultrasonic diagnostic apparatus wherein the selection unit comprises a reception switch that selectively connects a reception signal from the intra-group processors with a reception beam former (“receiver 50”, “output bus arrangement”, Col. 3, Lines 19-20, 60-64).

Regarding Claim 4, *Mason* further discloses an ultrasonic diagnostic apparatus wherein the selection unit comprises a data switch that selectively supplies group focus data to the intra-group processors (“transmitter 22”, “bus 32”, Col. 3, Lines 25-37).

Regarding Claim 5, *Mason* further discloses an ultrasonic diagnostic apparatus wherein the selection unit comprises a power supply switch that selectively supplies a group power supply to the intra-group processors (“transmitter 22”, “controller 24”, Col. 3, Lines 21-27).

Regarding Claim 6, *Mason* further discloses an ultrasonic diagnostic apparatus wherein the selection unit comprises a clock switch that selectively supplies a clock signal to the intra-group processors (“controller 24”, “signal pulse phasing”, Col. 3, Lines 4-25).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 7,285,094 B2 to *Nohara et al* reads on the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela M. Hoffa whose telephone number is 571-270-7408. The examiner can normally be reached on Monday - Friday, 7:30 am - 5:00 pm with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Melba Bumgarner can be reached on 571-272-4709. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. M. H./  
Examiner, Art Unit 4138

/Melba Bumgarner/  
Supervisory Patent Examiner  
Art Unit 4138

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